1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

Besides the guardian of the settlements, other wooden kamaks, consisting of long, thin tapered poles, are occasionally found in the villages. They are put up on a rock overlooking the sea, after the whale-hunt, by the owner of the skin boat the crew of which killed the whale. The duties of this wooden kamak are to watch the sea, and to attract new whales. Formerly it was customary to put a collar of sacrificial grass on the charm, and string around it offerings consisting of pieces of whale-skin and of blubber. Since at present the Koryak seldom engage in whale-hunting, I did not see any such decorated posts, but only those that had been put up long ago.[1]

There is still another kind of kalaks connected with whale-hunting. These kalaks are also put up after the whale-hunt; and a man who has killed many whales has several of these charms. They are of small dimensions, are kept in the house, and, when the whale-skin is being broiled, are seated or put up around the fireplace to watch the whale-skin, their tapering ends being driven into the ground. The fire on the hearth is regarded as the sea in which floats the whale-skin, representing the whale. If the whale is not watched, it dives into the fire, and disappears under ground, and whale-hunting ceases.

During this ceremony these kalaks are adorned with collars of sacrificial grass, but they are not "fed;" that is, are not smeared with fat, and are not offered any special food. They must help themselves. There are male and female kalaks; and when there are many of them, they form a family. In ordinary times they stand in the shrine set aside for the charms. The form of these kalaks is not the same in all villages. Since there is no whale-hunting at present, the charms are not made now; but I found several of them in Kamenskoye (Va'ĭkenan) and Talovka (Xe's-xen). They differ in form. In the village of Kamenskoye they have the shape of sitting figures (Fig. 5, *a-d*), and are usually painted in black: in the settlement of Talovka they have the form of a stick tapering at both ends, with a slight notch for a neck, with indications of eyes, and a line for a mouth (Fig. 5, *e*).[2]

Nets'-Kamak-Face. — This guardian (Tĭ'ñilat-ka'mak-lō^{t})[3] is made to guard the nets. It helps them to make a great catch, and protects them from the incantations of wicked people. This guardian is smeared with the blood of sea-animals and with blubber. It is kept in the usual place set aside for the charm, and is adorned with sacrificial grass. In winter it is not taken special care of. Like the "village guardian" mentioned above, it is represented as

[1] The following quotation from Krasheninnikoff (II, p. 103) bears witness that the Kamchadal also had wooden kamaks: "The Kamchadal put up a pole on the vast plains of the tundra, tie grass around it, and never pass by without throwing it a piece of fish or something else. Mr. Steller had seen two such posts near Lower Ostrog."

[2] It is interesting to note here that Krasheninnikoff (II, p. 126) speaks of the Kamchadal having small charms with pointed heads, under the name katide. They represent the spirits that enter women while they perform their ritual dances.

[3] Ka'mak-lō^{t} = kamak + lō^{t} ("face"). It refers to the amulets having a human or animal face.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

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having only one hand (Fig. 6), possibly because representing the one-sided spirits mentioned in some tales.

Little Kalaks. — The little kalaks (Kala'kpila'qu) correspond to the Chukchee Ta'yñiqut[1] ("misfortune protectors"), and consist of a string or

Fig. 5. Guardians connected with Whale-Hunting. *a–d* (⅞, ⅞, ⅞, ⅞), from Kamenskoye (*a*, *b*, height, 10 cm., 11 cm.; *c*, *d*, length of each, 12 cm.); *e* (⅛), from Talovka (length, 52 cm.).

bundle of small figures, which are considered as charms, and correspond somewhat to the rosary of the Catholic Church. Fig. 7, *a*, represents a string of little kalaks made of willow-branches. The forked part is meant for the legs, while the head and face are very crudely indicated. At times forked willow-

[1] Bogoras, Chukchee Materials, pp. ix, xxxv.

1: Jochelson E-5 (1900-01) 1908 R14 Koryak RY4

cossack. On mornings after a strong wind had been blowing at night, the hut would be found covered up to the roof with snow, so that we were unable to get out, and the Koryak would come to shovel off the snow and dig us out.

The bays of Okhotsk Sea, as well as those of Bering Sea near the Koryak shores, remain open in winter. Only the northern part of Gishiga Bay freezes up for a distance of from ten to fifteen miles from the shore. As late as May 10, 1901, I succeeded in driving on dog-sledges across the sea-ice from the mouth of the Chaibuga River to the small Russian settlement Kushka, at the mouth of the Gishiga, since, owing to the rising of the mountain-streams and the melting of the snow, it was impossible to go to that place direct by land. However, in Penshina Bay and on Bering Sea, only small narrow bays and a narrow strip along the shore freeze up; and in the course of the winter, even this strip of ice often gives way to the attacks of stormy tides and violent winds, and the ice is carried off into the open sea.

The mouth of the Penshina remained clear during my entire stay at Kamenskoye. Each incoming tide brought in the ice-floes, which, breaking against the rocky shore, were turned into a mass of ice, or left upon the rocks. All these circumstances — the open sea, the instability of the ice along the coast, and the floating ice in the open — affect unfavorably the sea-hunting of the Koryak. During the winter, when the Chukchee and Eskimo hunt seals under the ice, the Maritime Koryak cannot have fresh provisions from the sea, but are dependent upon their summer and fall supplies.

On the other hand, since the sea is not ice-bound, navigation in the Okhotsk Sea begins early in spring. According to Slunin,[1] American whaling-schooners appear in Penshina Bay as early as April, casting anchor near the Itkana settlement on the Taigonos Peninsula and in Ma'meč Bay in Kamchatka, where they find shelter from the strong winds. The first Russian steamers, however, do not sail from Vladivostok for the ports of the far north before the end of May, since, even as late as June, drifting ice is to be found in Baron Korff's Bay, near Okhotsk, and even near the Shantar Islands, situated to the north of the mouth of the Amur River, whither they are carried by the cold currents. The cold current from Bering Sea hugs the eastern shores of Kamchatka, while two cold currents are observed in Okhotsk Sea, — one, from Gishiga Bay toward the southeastern shores of Okhotsk Sea; another, in the northern part of Penshina Bay, passing along the western shore of Kamchatka toward the Kurile Islands.

The presence of ice far into summer, which absorbs most of the heat of the long summer days prevailing in that latitude, does not give the sea-water a chance to get warm, and to moderate the night temperature of the

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[1] Slunin, I, p. 259.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

It is hardly necessary to say that the species of fish caught by the Koryak are the same as those on the American side of Bering Sea, but they differ from those of the arctic rivers west of the Stanovoi Ridge. There we find mainly the *Coregonidæ*, which ascend the rivers from the polar sea, while in the Koryak waters the *Salmonidæ* (especially of the genus *Oncorhynchus*) are of greatest importance.

INFLUENCE OF CLIMATIC CONDITIONS UPON PROGRESS. — From this brief description of the nature of the region, it may be seen to what extent its form of culture depends upon surrounding conditions. It can hardly be expected that under such a climate the manner of existence can be materially changed. In the far north, material culture depends more upon the degree of latitude than upon human efforts. Agriculture is impossible, because the earth does not thaw out to a sufficient depth; the soil is mostly marshy; and the temperature is too low for the growth of cereals.

In 1901 there were in Gishiginsk only seventy-eight days without frosts, which is not a sufficiently long period for the growth of cereals. This time is in reality still more curtailed, since the growth of cereals does not begin, or stops if already begun, till the temperature is somewhat above the freezing-point. Botanists regard the temperature above 6° C. as a necessary one for the growth of cereals.

Taking into consideration the poor quality of the grasses, and the enormous expanses covered with moss, lichen, and marshes, cattle-breeding as an industry is also impossible. As we shall see below, the efforts of the Russian Administration to develop cattle-breeding among the Russianized Maritime Koryak of Kamchatka and the Okhotsk district — that is, in the more southern parts of the territory — has met with very little success.

The fur-trade cannot be regarded as a means of improving the general welfare of the natives, since, aside from the fact that the profits derived from it remain in the hands of unscrupulous traders, the number of fur-bearing animals is rapidly decreasing, owing to their ruthless destruction.

Fishing and the hunting of sea-mammals, as indicated above, can be carried on in the summer only; so that during the long winter the Maritime population have to depend exclusively upon their summer supplies.

Reindeer-breeding, though affording a more reliable source of sustenance to the wandering Reindeer people than that offered by hunting and fishing to the Maritime people, is still in a most primitive state. The type of a Reindeer household has so far remained unchanged, contact with Russian civilization for a century and a half not having exercised any influence upon it. This primitive state of the material life of the Koryak, left almost intact by outside influence, determines the primitive state of their mental culture.

1: Jochelson E-5 (1900-01) 1908 R94 Koryak R94

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Fig. 1. Woman Fishing.

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Fig. 2. Hunters bringing in White Whale.

The Koryak.

[Facing p. 533]

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

this reason the ribs which join keel and rails slant upward. Thus the cross-section of the bottom of the kayak has the form of an obtuse angle. Thin boards fastened with thongs to the inner sides of the ribs, and running the full length of the kayak, between the rails and the keel, give additional strength. The deck is formed by cross-bars running from one rail to the other. The manhole is near the middle of the deck, which is also strengthened by longitudinal strips. The manhole is formed by an oval hoop. A broad board lying at the bottom of the boat under the rear end of the manhole serves as a seat, which is usually covered with a piece of sealskin. Like the skin boat, the kayak is covered with thong-seal skins. Ordinarily two skins, the hair of which is not always removed, are sufficient. After the kayak has been covered with skin, the manhole is placed in position. The cover is so cut at the manhole as to leave enough material to turn in the edges, which are sewed around the hoop by means of thongs.

The kayak is very light, so that it can easily be lifted with one hand. The weight of one is 32 pounds. Its length is 269 cm. and its maximum width (i. e., the diameter of the manhole) is 75 cm. Its height is 28 cm.

Near the prow and the stern of the kayak, skin handles are sewed for pulling it out of the water, either upon shore or upon floating ice, or for carrying it across promontories. In certain settlements only a double-bladed oar, like that of the Eskimo, is used with these kayaks. It is held with both hands, in the middle, and the two terminal blades are used alternately. In Itkana and Paren two paddles with short handles are used, the blades of which have on one side pieces of bone of whale sewed on, which look like fins. These small oars are 41 cm. in length. They are tied to the rim of the manhole with a thong one metre in length, so that they can be dropped into the water or placed within the kayak while casting the harpoon or while shooting. With these short paddles they row alternately with right and left hand, bringing their hands down almost to the level of the water.

Sitting in the manhole, the hunter can stretch his feet under the deck of the kayak. In the kayak he places the harpoon-heads, the throwing-board, the bag with the harpoon-line, and his arrows. In the hold of the kayak are kept the harpoon-shaft, spears, and gun. When making ready for an attack on sea-animals, the hunter places the harpoon on deck, first thrusting the end of the shaft into a skin loop which is sewed to the deck of the kayak near the prow.

The progress of the kayak in calm weather is extremely fast; but its use is not without danger, as it is easily upset by wind or waves, and it is necessary to balance it carefully while paddling. In stormy weather the Koryak do not venture upon the sea in kayaks.

Dug-Outs. — In the settlement of Kamenskoye and in northern Kamchatka dug-out canoes are also used, like those employed by the Yukaghir

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

and Kamchadal, who have no skin boats. These canoes are called struzhok (струзокъ) by the Russians, and yaßča'atwat or yañya'atwat by the Koryak. They are hollowed out of poplar or aspen trunks by means of an adze, and are so well made that they are not heavier than skin canoes.[1] The dug-out is propelled with a double-bladed paddle, while in shallow and rapid rivers it is punted with two short poles. The dug-out is rather a river-boat; but the inhabitants of Kamenskoye, and the maritime Koryak of northern Kamchatka, go out in them on the bays to hunt seals, like the Kamchadal.

Another kind of dug-out, but for river use exclusively, is that called bat (батъ) by the Russians, or e||ɛ'ut by the Koryak. It is about twelve metres long, or longer, narrow, and heavy, roughly hewn, and hollowed like a trough. It is in use also among the Kamchadal, but is not met with among the Yukaghir. This boat is used mainly for crossing rivers and for trips up and down rivers. It is built for two persons on the prow and one at the stern, who use long poles for punting. When fish are caught on the bank opposite a village, they are taken across in such boats. For ferrying cargoes and men across the river or floating them down the river, a catamaran is made of two such boats, which are joined by means of a bridge (Fig. 84). A double boat

Fig. 84 ($\frac{1}{11}$). Model of a Double Boat. Length, 61 cm.

of this kind is very convenient for freighting, and is quite safe. Whenever the Koryak fish in the river, above their village, they descend with their families and their catch in such crafts when the fishing is over.

Hunting of Sea-Mammals. — Among the palæasiatic tribes, the sedentary Yukaghir alone live by fishing exclusively. The Kamchadal engage in fishing principally, and hunt very little for sea-mammals. Among the Maritime Koryak, as among the Gilyak, the hunting of sea-mammals is of great importance, although at present in most of the Koryak settlements fish is a more important staple food than sea-mammals. In former times the hunt for sea-mammals was more important among the Koryak than it is at present. Like the Eskimo, the Maritime Chukchee continue to hunt principally sea-mammals, and fishing plays a secondary rôle in their household economy.

Seal-Hunting. — Seal is the mammal most extensively hunted, especially

[1] Further details concerning dug-out canoes will be found in the monograph on the Yukaghir.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

225 136 Seal-Hunting.—Seal is the mammal most extensively hunted, especially in Penshina Bay. The following species are found in Koryak waters: (1) ground-seal, or bearded seal (*Erignatus barbatus;* Koryak, mémel; Russian, nerpa or lakhtak), the largest of seals, measuring from 2 metres to 2.6 metres in length; (2) spotted seal or Okhotsk seal (*Phoca Ochotensis;* Koryak, keli'in; Russian, larga); (3) ringed-seal (*Phoca hispida;* Koryak, wi'twit; Russian, akipa), the smallest of seals; and (4) ribbon-seal (*Histriophoca fasciata;* Koryak, esgi'es; Russian, krylata). The last-named seal inhabits only Bering Sea; but an old man from the settlement Kuel told me that once he had caught a ribbon-seal which had incidentally entered Penshina Bay.

Ground-seal and ringed-seal are hunted the greater part of the year, except during the winter months. When the coast-ice breaks up, early in June, and the rivers carry masses of ice into the sea, thong-seals and ringed-seals are fond of lying on ice-floes, on which they are killed from skin boats and kayaks. When the river-banks are clear of ice, the thong-seals like to go ashore in bays and river-mouths and bask in the sunshine, or they lie on the banks after high tide. But the principal hunting-season for thong and ringed seals is in autumn, — in September and in the beginning of October. 221 225 Then the seals enter the river-estuaries, evidently in the wake of the fish which ascend the rivers to winter there. In autumn, when the coast-ice begins to form in the gulfs, thong and ringed seals again enjoy floating on ice torn away from the coast by the tide or the wind.

The spotted seal appears early in June, soon after the rivers are clear of ice, near the shores, and enters the estuaries, ascending in small numbers with the flood-tide, and returning with the ebb-tide; but with the beginning of the dog-salmon run, after the 14th of July, the spotted seal, at flood-tide, follows the salmon into the rivers in shoals, in pursuit of the fish, which, in their endeavors to escape them, jump out of the water. Here and there the seals are seen thrusting their heads out of the water, quite often holding a fish in the mouth. In the month of June, when the run of the dog-salmon begins, I made a boat journey from the Gishiga River to the Nayakhan River, and saw all the rocks in this part of Gishiga Bay covered with spotted seals basking in the sun. We approached in our boat quite close to these little islands. Though the sea was perfectly calm, the incessant deafening cries of seabirds, particularly of the numerous varieties of gulls, drowned the noise of the oars, and the seals noticed us only when we were at a distance of some thirty metres from them. As soon as they saw us, however, in an instant they rolled, grunting, off the rocks into the sea. In autumn the spotted seal leaves the coast. The main hunting-season thus coincides with the run of the dog-salmon.

In winter, beginning with the middle of October, the hunting of seals ceases. The Maritime Koryak of Penshina Bay and Bering Sea do not resort to the method practised by the Eskimo, Chukchee, and also by those Gilyak

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

who live between the mouth of the Amur and Saghalin, of watching for seals on the ice near the breathing-holes, or of placing nets near these holes. The sea does not freeze over in winter to any extent, and the narrow strip of coast ice is often torn away by the wind. The violent winds of winter and the floating ice make trips in boats in winter dangerous or impossible. For this reason there is no seal-hunting in winter either in the open sea or on the ice. It is only by chance that every now and then a thong or ringed seal is killed that goes astray on the coast ice or crosses over an isthmus between two bays. In Gishiga Bay, where many coves freeze over to a much greater extent than the open coasts of Penshina Bay, seal-hunting in winter at breathing-holes would probably be possible. In excavating old underground houses of the Maritime Koryak south of Gishiga I found, among other fragments of bone implements, a round piece of antler of a fawn. According to my Russianized Koryak companions, it might have served as an ice-scratcher, such as are employed by the Chukchee and Eskimo in seal-hunting in winter.[1] At the present time, with the exception of the Russianized Koryak of the settlement Nayakhan, there are no Koryak villages on the coast of Gishiga Bay; while the Russians and the Russianized Koryak hunt for sea-mammals only incidentally, even in summer.

At present, guns, nets, and harpoons are employed in hunting thong-seal. Though guns, as will be seen later, are nowadays common enough among the Koryak, they are used but little in seal-hunting. In deep water a seal, if it is not very fat, sinks immediately when killed by a bullet; if only wounded, it escapes. In shallow water, when hunted with the gun, it must be killed on the spot, else the wounded seal will succeed in getting away to the sea. Not infrequently even a seal killed outright is carried out to sea by the current of the river or by the tide, and cannot be found after the water has receded.

When detained by a gale in Atykino Bay[2] for five days, we hit spotted seals many a time with our Winchester and Berdan rifles, but only two of them were found at low water. The gun is of service only when the seal is ashore and far away from water.

In summer and autumn, when seals enter the river-mouths and bays, they are hunted with nets. In autumn, seal-nets are set up mainly to catch thong-seals. The net is netted of thongs made of the hide of thong-seals. Fig. 85, *c* shows three meshes of such a net and the method of making the knots. The length of the side of a mesh is 23 cm.; the length of the whole net, 13 metres; its height, 14 meshes. These nets are placed in riverestuaries or on the beach. They are set at low tide by driving into the ground a row of stakes (Fig. 85, *b*), to which the nets are tied. The floats (Fig. 85, *a*,

[1] See Bogoras, The Chukchee, Vol. VII of this series, Fig. 36, *d*, *e*, p. 199.

[2] Atykino Bay lies midway between the mouths of Gishiga and Nayakhan Rivers (See Plate XXIX, Fig. 2).

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

237 225 are made of wood. Thong-seals become entangled in the nets when returning to the sea at ebb-tide. The hunters go to the nets before low water, and with bone mallets or clubs hit head and nose of the seals that are entangled in the meshes.

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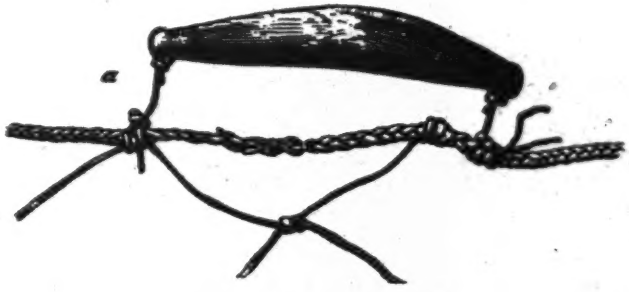

Fig. 86 represents a mallet used for stunning seals. It is made of bone of whale, and the handle is of wood. Its length is 52 cm. This mallet is also used for killing seals that have fallen asleep on the shore.

[197]

Up to the present the harpoon has remained the principal weapon for hunting seals. Before learning the use of iron, the Koryak used to make harpoon-heads (Koryak, yiyi') for seals of bone or ivory. Fig. 32, *a–e*, given by Mr. Bogoras,[1] represent types of harpoons similar to those of the Eskimo. Closely related to these is the type of Koryak harpoon shown in Fig. 87, *e*, and in Fig. 92. The principle of both of these specimens is the same as that of the Eskimo harpoon-head with blade parallel to the barbs. The back of the large harpoon-head is slightly keeled, and the barb is strongly curved and provided with a notch. An ornamented specimen of this kind is shown in Fig. 191, *e*. It is a characteristic trait of these specimens that the loop by which the harpoon-

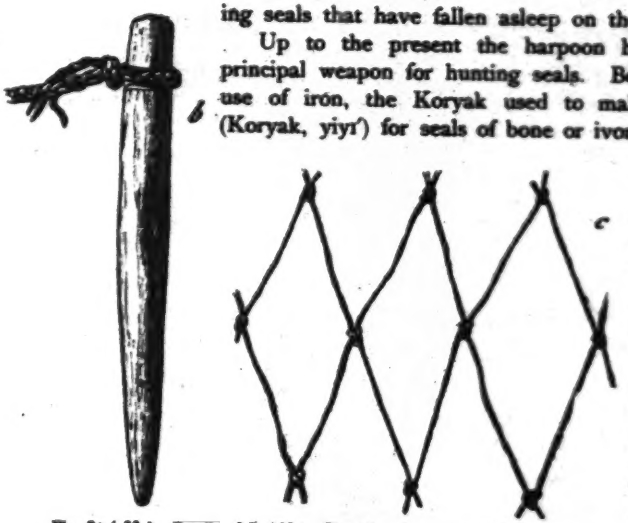

Fig. 85 (1/12). Details of Seal-Net. Size of mesh, 47 cm. *a*, Swimmer; *b*, Stake; *c*, Part of net.

[1] Bogoras, The Chukchee, Vol. VII of this series, p. 126.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

point is attached to the line is tied firmly to the foreshaft. In all specimens the barb of the harpoon-point is held to the foreshaft by a loop which passes over the harpoon-head and over the thong loop by means of which the harpoon-head is attached to the harpoon-line. The latter loop is also attached to the foreshaft, which has a perforation for this purpose near its lower end. When the harpoon strikes the animal, the small loop which holds the barb to the foreshaft slipps off and the toggle-head comes off; without, however, being disengaged from the foreshaft, to which it is held by the small loop which passes through the perforation near the base. Two of the small harpoons here described have a screw cut into the base, evidently to give to the point

Fig. 86 ($\frac{1}{11}$). Mallet for stunning Seals. Length, 52 cm.

Fig. 87. Harpoon-Heads. *a* ($\frac{1}{11}$), Barbed bone harpoon (length of point, 16.5 cm.); *b* ($\frac{1}{11}$), Small barbed bone point (length of point, 5.2 cm.); *c* ($\frac{1}{11}$), Bone harpoon with iron blade and foreshaft (length of point, including foreshaft, 12 cm.).

a better hold in the end of the harpoon. The occurrence of the screw in this position is interesting when compared to the screw devices used by the Eskimo in similar positions.[1]

The bone harpoon shown in Fig. 87, *a*, is evidently related to this type, from which it differs in not having a separate harpoon-head and foreshaft. It is evident, however, that the perforation at the base, through which the line loop passes, corresponds to the small perforation in the type of harpoon described before. The modern iron harpoon shown in Fig. 88, *c*, is closely related to the bone harpoon just described, from which it differs only in the arrangement of its barbs. To the same type belong the iron harpoons figured by Bogoras.[2]

[1] See Globus, Vol. 79, p. 2; Bulletin American Museum of Natural History, Vol. XV, p. 397.

[2] Bogoras, The Chukchee, Vol. VII of this series, Fig. 32, *f*, *g*, p. 116.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

411 225 Related to this type are also the round barbed points shown in Fig. 87, *b*, and the one shown by Bogoras,[1] the attachment of which is the same as that of the preceding specimens, while the barbs are arranged symmetrically all around the round point. The model shown in Fig. 88, *a*, is an imitation of a harpoon that has been in use for some time among American whalers, and which is characterized by its movable hinged joint.

Fig. 88. Harpoon-Heads. *a* ($\frac{1}{7}\frac{1}{1}\frac{1}{2}$), Imitation of whaler's harpoon-head, of sheet-iron (length, 9.5 cm.); *b* ($\frac{1}{7}\frac{1}{1}\frac{1}{2}$), Point of bone, with iron blade (length, 15 cm.); *c* ($\frac{1}{7}\frac{1}{1}\frac{1}{7}$), Harpoon-point of iron (length, 9 cm.).

411 The use of the remaining specimens shown in Figs. 88 and 89 is not quite certain. Fig. 88, *b*, represents a head that has probably been used with an arrow or a lance. The base of the bone part is hollow for a distance of a little over one centimetre, and would fit the end of a wooden shaft. The four barbs on the bone end have their sharp points turned forward, and therefore do not hold the head in the wound, but would only tend to tear the sides of the wound. The two specimens shown in Fig. 89 also seem to be heads of arrows or lances.

Fig. 89. *a* ($\frac{1}{7}\frac{1}{1}\frac{1}{2}$), Double-Pointed Arrow-Head made of Iron (length, 11 cm.); *b* ($\frac{1}{7}\frac{1}{1}\frac{1}{2}$), Lance-Head of Bone and Iron (length, 17 cm.).

At present bone harpoon-heads are not infrequently made use of, but most heads are of iron or consist of two pieces, — an iron blade inserted into a bone point.

225 237 The harpoon-line, which is about 18 metres long, is made of the hide of a thong-seal. It is coiled up and kept in a small round basket woven of grass or nettle-thread. The free end of the line terminates in a loop. Before hurling the harpoon, the line is taken out of the basket, and the loop is put on the hunter's left hand; or it is tied to the stern of the skin boat, if the harpoon is cast from the boat.

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[1] The Chukchee, Vol VII of this series, Fig. 32, *i*, p. 116.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

There are two kinds of harpoon-shafts, — the simple shaft (Fig. 90, *a*); and a longer one, used with a throwing-board (Fig. 90, *b*, *c*). It is curious that the Chukchee employ a throwing-board only for casting the bird-dart.[1] On the other hand, the Eskimo of Baffin Land and of Alaska make use of the throwing-board both for the seal-harpoon[2] and for the bird-dart.

The method of attaching the foreshaft and the harpoon-head to the harpoon-shaft is shown in Fig. 90, *a*. It will be noticed that the line passes through a loop which is inserted in the shaft near its point. The loop consists of a small strap, and is closed by a button. It will thus be seen that

Fig. 90, *a* ($\frac{1}{11}$), Harpoon (length, 119 cm.); *b* ($\frac{1}{11}$), Long Harpoon with Throwing-Board (length of harpoon, 211 cm.); *c* ($\frac{1}{11}$ b), Throwing-Board (length, 45 cm.).

the harpoon-point, after the animal has been hit, remains attached to the short shaft, which acts as a drag and float.

At its tip, the shaft of the long harpoon has a head made of bone of whale, with a hollow in its upper part, into which the lower end of the harpoon-head is inserted. The shaft tapers down to its butt-end. The throwing-board has two holes. Into one of these, in the handle part, the index-finger of the right hand is inserted; while into the other, in the back, is inserted a bone peg, which is driven into the harpoon-shaft a little behind the middle (Fig. 90, *c*). The thumb grasps the shaft on the left side, while the other three fingers support it lightly on the right. The bone peg is curved back somewhat toward the butt-end of the shaft to prevent it from slipping off the throwing-board by the weight of the forward part of the shaft and head. It is specially liable to do so, owing to the inclination of the harpoon when hurled from the skin boat. When the harpoon is hurled forward with great force, by means of the impetus given by the swing of the throwing-board, which acts against the peg, the hand quickly lets go the shaft and at once makes a backward movement. The peg is set free, the shaft with its head darts on in the desired direction, and the throwing-board remains in the hunter's hand. After the harpoon-head has been driven into the animal's body, the shaft is set free by the shock, and falls into the water, from which the hunters take it back after the animal has been killed. The seal immediately dives, drag-

[1] Compare Bogoras, The Chukchee, Vol. VII of the series, pp. 145, 146; Boas, Central Eskimo, p. 496.
[2] See Boas, Eskimo of Baffin Land, p. 80; Nelson, The Eskimo about Bering Strait, p. 136.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

411 ging the line along, but the necessity of breathing compels it to emerge.
225 Then the hunters endeavor to harpoon it again; but if the seal has been killed outright or severely wounded, it is dragged to the boat and lifted into it by means of hooks.

Whenever a hunter has caught a seal on shore, and has not succeeded in cutting off its retreat, he sends a harpoon after it without using a throwing-board. When hunting in kayaks, and in the pursuit of seals basking on ice-floes, both kinds of harpoons are employed, without the throwing-board, or with it; but the former method is in much more frequent use.

On floating ice, seals are hunted both at the beginning of summer and in autumn, when the ice, freezing near the shores, is torn off and carried out to sea. The hunters go out in a skin boat. On noticing one or more seals on a floe, one or more hunters are lowered into kayaks, and endeavor to approach the seal from under the wind, until within range of the harpoon. During this operation the hunters have bags made of the white skins of fawns over their heads and shoulders. If the seals notice the kayak, the hunter stops paddling and lets his white hood still farther down, so as to look like an ice-floe. As soon as the seals have become quiet, the hunter continues his approach. Grasping the harpoon with his right hand, ready for action, he tries at the same time to take hold of the floe, and to pull himself toward it with his left hand by means of a bone hook attached to a long pole (Fig. 91). In case the seal is asleep, the hunter may go up to the

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Fig. 91 ($\frac{1}{11\frac{1}{2}}$). Ice-Hook. Length, 160 cm.

ice-floe in his skin boat, and even climb up from the kayak. In the same manner rocks and islands on which seals lie are approached in kayaks.

225 Hunters in kayaks cut off the retreat to the sea, of seals which have
221 remained in shallow bays and river-estuaries during ebb-tide.

Winter supplies are principally obtained from the hunt in autumn. The seals caught from early until late in summer, and principally the spotted seals killed during the dog-salmon run, serve for immediate use only. It is impossible to lay by supplies at this season, because the meat decomposes rapidly. Besides, the seals are not very fat in summer.

During the fishing-season the hunters pay little attention to seal-hunting. They are too intent upon catching fish and preparing it for the winter supply. Besides, there is plenty of food in summer. It may happen that

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

from a lean seal only the skin is taken, while the carcass is cast into the sea. In many cases the spotted seal is hunted in summer for its skin only. The whole winter supply of seals is obtained in autumn by means of net and harpoon. At this season the temperature is so low that in the night, or even by day, the dead seals freeze and can be left in their skins. In autumn the seals are very fat, and when shot with a gun do not sink so easily. The hunters usually make two autumn expeditions out to sea for hunting seal (mainly thong-seal, in part ringed-seal, and very few spotted seals), each expedition lasting several days. Each boat is accompanied by several kayaks, which are either taken aboard or follow on independently.

In Kamenskoye and Itkana I collected some information concerning the numbers of seals killed for winter supply by the hunters in the autumn of 1900. The hunters keep no account of the number of seals killed and eaten in summer. In Kamenskoye the inventory made by me, of the autumn hunt of nineteen families, gave a total of 272 thong-seals, or an average of 14.3 to a family; the minimum catch of a family being 3, the maximum, 27. They had hunted ringed-seals as well, but kept no account of them. They were few in number, and part of them were eaten during the hunt. In general, during the autumn hunt attention is paid to the large seals only.

In Itkana I recorded the results of the autumn hunt of seals for the winter supply of seventeen families. There were, in all, 292 thong-seals and 89 ringed-seals, with an average of 17.2 thong-seals and 5.2 ringed-seals to a family. I also learned that 112 thong-seals were caught by means of nets, and 180 were killed with harpoons. It is clear from this that the inhabitants of Itkana were more successful than those of Kamenskoye. This is explained in part by the fact that very little salmon is caught at Itkana, which is situated on a bay with a small river in which the dog-salmon does not run, and therefore they have to content themselves mainly with catching such small fish as the salveline, tom-cod, smelt, and uyo'k *(Salmo socialis)*.

The inhabitants of Kuel and Paren, who obtain large supplies of dog-salmon on the Paren River, are much less occupied with seahunting than those of Itkana, and also less than those of Kamenskoye, who obtain dog-salmon in great quantities. The inhabitants of these settlements live principally on fish.

Whale and Walrus Hunting. — In former times whaling played a very important part both in Bering Sea and in the Sea of Okhotsk. To judge from the stories told by the Koryak, Penshina Bay used to be rich in whales, which were hunted frequently. This is sufficiently proved by the pre-eminence of the whale festival over other festivals. It is known from ancient records that American whalers visited Penshina Bay as early as the beginning of the last century. Old Koryak still relate how they themselves used to go whaling, but this industry came to an end many years ago. The

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

205 177 Koryak say that until lately three American whalers used to go to Penshina Bay every summer, but in the last two or three years only one went. Evidently the whales have left for the open sea to escape being hunted in the bays. While entering Nayakhan Bay[1] in a boat, we saw a great number of whales blowing far away in the mouth of Gishiga Bay. The Koryak do not venture to go whaling in their skin boats in the open sea. During their expeditions they do not go far from shore. In calm weather they cross Penshina Bay only at its narrow part, from Ma'meč to Itkana or from Ma'meč to Kamenskoye. If the Koryak have obtained any whales during the last few years, they have either been dead ones drifted ashore — whales wounded by whalers, but not caught by them, or those that perished from the attacks of the killer-whales — or whales killed by the American whalemen and left to them. In the latter case, the whalers take off the skin, blubber, and whalebone, and, after informing the Koryak, throw the rest of the body ashore, or even tow it to the nearest settlement. The Koryak speak with gratitude of these acts of the American whalers or at-ayim (i. e., "chiefs of the boats"); but probably the rapacious pursuit of whales by whalers is the principal cause of their disappearance from the Koryak bays. In the summer of 1900 the Koryak of Penshina Bay had two dead whales. One was cast out by the sea near the settlement Ma'meč, and the other was taken to the village Itkana by an American whaler, — the only one that year in Penshina Bay. It goes without saying that whaling by foreign whalers in Koryak waters is considered illegitimate by the Russians, and is possible only because of the absence of a Russian cruiser.

225 136 Exactly what species of whale the Koryak hunted is difficult to say. The whale which they honored with a festival is called by them yu'ñın. According to their description, this is the largest of all whales, with a skin of dark color and with black whalebone. When killed, the whale does not sink, owing to its blubber. This is evidently the Greenland whale (*Balæna mysticetus* L.). Another whale is called "diarrhœa-whale" (poqla'-yu'ñın). It is small, and has white whalebone. The Koryak never hunted it, but ate it when washed ashore by the sea. A third kind of whale is called lu'kula'n, and is met with in the ocean, but never enters the bays. Finally the Koryak are also familiar with the killer-whale *(Orca gladiator Gill)*, which they call "wedge-whale" (wu'li-yu'ñın); but I did not observe that it is an object of cult, as among the Gilyak, who consider it a beneficent spirit, that kills large whales for them. Krasheninnikoff says that the Kamchadal dread the killer-whale so much, that they not only do not kill it, but do not even approach it, for fear that it will upset the boat of the hunter. Whenever they saw a killer-whale approaching their boats, they sacrificed to it, praying that it might do them no harm.[2]

[1] Compare p. 403.

[2] See Krasheninnikoff, I, p. 426.

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

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Several skin boats joined in hunting the whale. The greatest chance for success was during the spawning-season of small fish, like the uyo'k *(Salmo socialis)* and other species of smelt, which were pursued by the whales into bays and rivers. Whales were hunted exclusively with a harpoon with stone head. Heads made of bone were not in use. According to the Koryak, the painful wounds inflicted by bone heads did not cause any particular harm to the whale. The rifle-bullets which the Koryak tried to use in whale-hunting, after they had become familiar with fire-arms, would stick in the layer of blubber without causing the whale any injury. Only stone heads, with their numerous irregular facets and saw-like edges, cause deadly, lacerated wounds. It is plain that the perfected methods of hunting resorted to by civilized whalers were unknown to and beyond the reach of the Koryak.

Fig. 92 represents a stone harpoon-head for whaling (yiyi'). It consists of a flint blade *(a)*, the lower part of which is inserted in the head *(b)*, made of the antler of a wild reindeer. The blade is fastened to the head by means of gum of the larch-tree. Attached to the head is a thong *(c)* of walrus-hide, forming a loop below for tying on the harpoon-line. As in the harpoons for seal-hunting, the loop passes through a hole of the harpoon-head. The wooden foreshaft of the harpoon *(d)* is inserted in the hole at the bottom of the head, while its butt-end is inserted in the point of the harpoon-shaft, which is made of bone of whale. Into this the wooden end of the harpoon-head is inserted. These parts are joined by a lashing of whalebone, as shown in *e*. The length of the whole harpoon-head here figured is 113 cm.

Fig. 92 (¹/₁₁).
Whaling-Harpoon.

When going out on a hunting-expedition, each skin boat carries one or two harpoon-shafts, one or two harpoon-lines coiled up in grass bags, about half a dozen harpoon-heads placed point upwards in a tall wooden pail, from four to six stone spears, seal-skin wallets containing a change of clothes for the hunter, and a tripod with a sail.

The most skilful hunter is stationed in the bow of the boat. When near to the whale, he hurls the harpoon with all his might. Immediately the whale dives, carrying with it the harpoon-line and the boat to which the end of the line is fastened. When the whale comes up again to blow, — sometimes after a long time, — the hunters in the boats that happen to be nearest endeavor to drive another harpoon into it. When it is tired and worn out from the wounds received in this way, the boats advance nearer and despatch the whale with stone spears (a'uta-qa'mvm) such as represented in Fig. 93. A separate stone

1: Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

225 411 head of such a spear (a'ut) is shown in Fig. 136, *a*. It is 15 cm. in length. The lower narrow part of the a'ut is fitted into a hollow at the thicker end of the wooden spear-shaft, which is wound with a thong. When the whale is dead, its carcass, which is studded with harpoons and spears, is taken in tow by all the boats that have participated in the hunt, as shown in Fig. 247, and is hauled to the village.

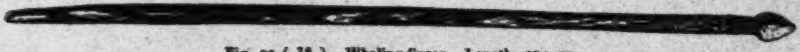

Fig. 93 ($\frac{1}{11}$). Whaling-Spear. Length, 204 cm.

Krasheninnikoff relates[1] that in his time the people of Alutor caught whales in the bays in enormous nets made of smoke-dried walrus-hide thongs as stout as a man's arm.[2]

136] White whales *(Delphinapterus leucas)* are hunted in the same way as thong-seals. The white whale (Russian belukha [бѣлуха]; Koryak, yiyi'ñin), too, comes into the bays and river-estuaries with the flood-tide in pursuit of fish, and goes back to the open sea with the ebb-tide. The full-grown white whale measures four metres and upward in length. Not infrequently it runs into the nets set for catching thong-seals. Both sealing-harpoons with iron heads and whaling-harpoons with stone heads are used in hunting white whales. When the white whale is worn out from wounds, it is despatched with a stone spear in the manner described above. If the white whale does not hurry to return to sea with the ebb-tide, while the water is still high, the hunters block the river-mouth in their kayaks, and drive them back into the river by means of shouts and by striking the water with their oars until the estuary becomes shallow and the white whale remains almost high 133 and dry. It is then easily killed with rifles and spears. In this way the Koryak sometimes shut whole shoals of white whales within the river-mouths, 125 as was the case in the summer of 1899, when the Koryak hemmed in sixteen white whales in the estuary of the river Ovekova. Still the number of these animals caught is insignificant in comparison with the enormous quantities found in the Koryak waters. Thus during the summer of 1900 the inhabitants of Kamenskoye caught nine white whales; those of Itkana, six; and 492 those of Kuel, only two. Plate XXVIII, Fig. 2, shows how the inhabitants of Kuel haul a white whale caught in seal-nets on dog-sleds over the coast-ice to the settlement. This photograph was taken in the beginning of October.[3]

[1] See Krasheninnikoff, I, p. 421.

[2] In looking over the annual reports of the commander of the district, in the Gizhiga archives I found some data as to the number of whales killed by the Koryak in certain years. Judging by other statistical data contained in these reports, these numbers are doubtless also below the actual. A catch of two whales is recorded for 1848 in Paren, and of two whales in Kamenskoye; for 1856, three whales in Kamenskoye; for 1886, six whales in the whole of Penshina Bay.

[3] See description of festival, Part I, pp. 69—77.

1; Jochelson E-5 (1900-01) 1908 RY4 Koryak RY4

I will remark here that seals are hauled from the shore to the village over the ground or ice by means of a thong, which is usually passed through a slit running from under the lower jaw through the mouth. I did not see among the Maritime Koryak of Penshina Bay any small sleds such as are used by the Chukchee and Eskimo for conveying home seals.[1]

In the Bays of the Sea of Okhotsk there are no walruses and sea-lions, nor any ribbon-seals *(Histriophoca fasciata)*. Old people in the village of Itkana told me that they knew of one case of a walrus being caught in Penshina Bay. How reliable this information is I do not know. The walrus in Bering Sea has decreased very much in numbers owing to its incessant unlawful pursuit. They are hunted by the Koryak in the same way as seals, — mainly with harpoons. In former times the Karagha estuary and the bays of Karagha Island were favorite localities for walrusing.

Hunting of Land-Game. — The wild reindeer and the mountain-sheep or Kamchatka big-horn (*Ovis nivicola* Eschholtz) are the only wild land-animals killed by the Koryak for food. The elk and the musk-deer, which are met with on the southern coasts of the Sea of Okhotsk and west of the Stanovoy Mountains, are unknown in the Koryak territory, at least nowadays.

The hunt of wild reindeer is unimportant; and there are few hunters who make a specialty of this pursuit, as is the case among the Yukaghir and Tungus. Besides, the wild reindeer in the Koryak territory are not numerous. The domestic reindeer, for which the best pastures are selected, has pushed the wild herds to the north or to the less favorable pastures of the mountain-chains. They are found in small herds only, on mountain-tops in summer, and in the tundras and river-valleys in winter. On the Palpal Ridge a wild reindeer is found which crosses the Anadyr River and lives in summer on the coast of the Arctic Ocean. Small herds of the migratory wild reindeer reach the most southerly parts of the Koryak territory. The Maritime Koryak rarely hunt the wild reindeer. It is pursued principally by the inhabitants of northern Kamchatka and of the Parapol Valley, and particularly by the Koryak on the Palpal.[2] Still the hunt is not carried on regularly. In domestic life, as well as in trade, the wild reindeer is of slight importance only. Skins of wild reindeer are not exported from Gishiga; while among the number of reindeer-skins exported from the Anadyr and the Kolyma Rivers the skins of wild reindeer occupy an important place,[3] since on these rivers many are killed during their migrations to the north and back.

Like the wild goat, the mountain-sheep is fond of rocky mountain-tops, where it feeds on alpine marshes. It is especially numerous in the Kam-

[1] See Bogoras, The Chukchee, Vol. VII of this series, p. 107.

[2] In regard to the methods of hunting wild reindeer compare Bogoras, The Chukchee, Vol. VII of this series, pp. 132–136; Jochelson, Sketch of the Hunting Pursuits and Peltry Trade in the Kolyma Country (St. Petersburg, 1898), pp. 41–48.

[3] See Jochelson, Sketch of the Hunting Pursuits and Peltry Trade in the Kolyma Country, p. 38.

17:Antropova E-4 (no date) 1964 RY4 Koryak RY4

sea hunting with reindeer-breeding. The remaining 7 groups of Koryaks—the Kamentsy, Parentsy, Itkantsy, Apukintsy, Kereks, Karagintsy and Palantsy—also maintained complex economies, with one or another occupation predominating.

Koryak reindeer-breeding was of two types. The first type—the keeping of large herds—existed among the Chavchuvens. In the early part of the 20th century, a small group of reindeer-breeders owned large herds, accounting for up to 80% of the total number of head. In the area of the Penzhina River, some reindeer-breeders owned 2-3 herds, adding up to as many as 10,000 reindeer. The pasturing of the large herds owned by the rich Koryaks was done by poor Koryaks who owned only a few reindeer or none at all, and were compelled to tend their master's herds in exchange for food and clothing.

The reindeer provided the principal item of the reindeer-breeders' diet—meat, and the basic material for clothing and housing—hides, as well as tendons, of which thread was made. At the same time, the reindeer was to the reindeer-breeders the sole means of transportation. Hence, the entire life of the reindeer-breeding Koryaks was adapted to the demands of their basic occupation. In winter, the herd grazed near the encampment. As soon as the pasture was exhausted, the master drove out in a light sled, similar to that of the Chukchi and harnessed to a pair of deer, to search for another pasture. After that, the entire camp migrated to the new site, and the herdsmen drove the herd to the new pasture. Such migrations took place 4-5 times during the winter. In the spring, before the calving (in April), the females were separated from the rest of the herd. Calving time (May) was the hardest period for the reindeer-breeders. The newborn calves had to be protected from predators—wolves, foxes, wolverines and ravens, and also kept from freezing. At this time, the herdsmen had no rest either by day or by night. They were helped by members of their families, and even old men and children took part in guarding the herd in encampments where the human population was small. Afterwards, the herdsmen drove the herds for the whole summer into the mountains, which abounded in pasturelands. The correct choice of the summer pasture determined the welfare of the herd for the entire year. Summer pasturing required from the reindeer-breeder great skill, experience, and knowledge of the tundra and the reindeer's requirements. The encampment was situated at this period in a summer site, usually on the bank of a river abounding in fish. In autumn (at the end of September and beginning of October), the herdsmen brought the herd to the encampment. Meeting of the herd—one of the principal holidays of the reindeer-breeders—was attended by numerous rituals. After the first snow, the herd and the camp migrated to the winter range.

The herding was done without dogs, which the Koryak reindeer-breeders did not use. Nimble feet, alert eyes and a leather lasso requiring great skill of the herdsmen—these were the means at his disposal to protect the herd from snowstorms and wolves in winter, from foxes and ravens in spring, during the calving season, and from mosquitoes and gnats in summer.

Another type of reindeer-breeding—that of small herds—existed among the Alyutortsy Koryaks. More than 50% of all the Alyutortsy kept reindeer, but few had herds as large as 1000 head. A characteristic feature of Alyutor reindeer-breeding was the use of dogs as the principal sled animals. Each household had one, two, three or more teams. Reindeer were used only for short trips without loads.

This type of reindeer-breeding was usually combined with sea hunting and fishing. All the Alyutortsy, with rare exceptions, went out on sea hunts, especially in spring, when they hunted on drifting ice floes. In summer,

In summer, during the fish-runs, all reindeer-breeding Alyutortsy migrated to the mouths of rivers, where they lived with their sedentary kinsmen and worked with them, preparing stocks of fish for the winter. The reindeer herds remained at this time in the care of herdsmen—the boys of the family. This second type of Koryak reindeer-breeding originated much later than the first.

The hunting of sea animals (various species of seal and white whale) was the principal occupation of the northern sedentary Koryaks, who lived on the coast of Penzhina Bay: Kamentsy, Parentsy, Itkantsy. It also played an important role among the rest of the sedentary Koryaks: the Kereks, Apukintsy, Palantsy, Karagintsy, and sedentary Alyutortsy.

Sea hunting was done during two seasons: spring and fall. The spring season began in mid-March and ended in the latter part of June.

The hunters, armed with rifles and spears, drove out in parties of 78 men, or more, by dogsleds on the sea ice, 5 to 10 kilometers from shore. The seals, which climbed out on the ice, were shot with rifles. The kill was loaded on the sled, and the hunters returned to their village either the same or the following day, after a night on the ice. In a party of 78 men, 2 usually had guns, while the rest brought in the catch, loaded it on the sled and transported it; some were simply onlookers. In May, when open water appeared among the ice floes, sea hunting was done in baydars (skin boats).

The fall season began in mid-September and ended in the latter half of November. The fall hunting was also done in baydars and barkasy [flat-bottomed plank boats]. The animals were caught with nets of sealskin strips.

Long ago, the Koryaks hunted whales. According to legends and literary sources of the 18th century, the hunt was conducted with a huge net, woven of thick strips of leather. Large stones were used as sinkers. The net was attached to coastal cliffs and crags. Dozens of baydars, each with more than 10 hunters, armed with harpoons, sailed out into the sea. The hunters drove the whale into the net, in which it became entangled. The heavy sinkers made it impossible for the whale to swim out into the sea with the net. The hunters showered him with spears. Wounded and exhausted, the whale died, and the hunters joined forces to pull him ashore. The Alyutortsy also used joined boats instead of baydars in hunting whales.

The skins of sea animals were used for straps and boot-soles. The meat and blubber were eaten and stocked. The blubber also provided light. To the Kamentsy, Parentsy and Itkantsy, the products of sea hunting—blubber, skins, and sometimes meat as well—served as the principal media of barter with the reindeer-breeders, from whom they obtained deerskins and meat.

Fishing had long been the main occupation of the eastern sedentary Koryaks of the Bering Sea coast: the Karagintsy, the sedentary Alyutortsy and the Apukintsy. Fishing was also important to the western sedentary Koryaks—the Palantsy, and the northern ones—the Kereks—and somewhat less for the settled Koryaks on the Penzhina—Kamentsy, Parentsy and Itkantsy. Fishing was done throughout the summer and early fall season—from mid-June to the middle of September.

The most widespread method of fishing was by means of barriers. The river was fenced off from either bank with two barriers of stakes and twigs. At the place where they met, the fishermen attached under the water a chiruch (a sack-net) or a "muzzle," made of strips of wood, laths or twigs. Such barriers were set in shallow places, where the fishermen could work during shoal runs without boats or kungasy [sailboats]. The "muzzles" were emptied several times a day. During the heavy runs of fish (Siberian salmon and other migrating salmon species), the Koryaks moved to the mouths of rivers. Here groups of households combined into cooperatives and fished